PORTLAND FIRE WEATHER – 2004 ANNUAL REPORT

2004 FIRE SEASON OVERVIEW

The 2004 fire season for Northwest Oregon and Southwest Washington was expected to be as severe as the previous two or three years based on such a dry spring (March and April). However, the season turned out to be rather quiet. A wet late spring and significant late summer rain event resulted in a shortened critical fire period (generally July through mid-August).

The pre-season precipitation was generally below normal. Government Camp snow pack started slow, but made substantial gains in late December through mid-January. There was another burst in early March, but the snow pack diminished by early April. Typically, the snow pack persists through early June. In 2004, the ground was bare as early as April 10th.

The early-season wet period resulted in extremely low fuel indices by early June. All areas exhibited Energy Release Components (ERC) values under 10 on June 10th. In fact, ERC values for the coastal strip zones (601 and 612) did not exceed 10 until early July. "Critical" ERC values were infrequent. In 2003, "critical" ERC values in the Cascades occurred for several weeks. This past season, zones 606 and 608 reached "critical" values for 20 days, but zones 605, 607, and 660 had just eight days. The 100-hour fuel moisture values showed a similar pattern.

A major wetting rain event at the end of August turned out to be the season-ending event. Rainfall totals during the period August 21-26 were five inches or more in the portions of the Coast Range, Cascades, and Cascade Foothills. Some isolated locations received nearly ten inches. ERC values plummeted from near-critical values to single digits in a two-week period (mid-August to late August). Another significant rainfall event in mid-September prevented a return to any late-season potential critical fuel conditions.

There were four "critical" fire weather events this season. Two events occurred during the same overall weather pattern (see ***CRITICAL FIRE WEATHER EVENTS*** section, pages 25-32). All four Red-Flag events were for "problem" or "episode" lightning. Nearly all areas experienced much more lightning activity than normal. However, the majority of lightning days occurred during the late spring and early-fall, with abundant precipitation and during a period of low fuel indices. There were no east-wind events this season, which is quite rare.

The Red-Flag criteria were modified for the 2004 season. Specifically, there were minor adjustments to the wind/humidity criteria and to the "dry lightning" concept. The biggest change was in regards to "dry lightning". The Portland office adopted an idea formulated by the Northwest Coordination Center. The main premise was to devise Red-Flag criteria highly dependent on current and forecast fuel conditions before, during, and after a significant weather event. The idea was to get away from the subjectivity inherent in the "dry lightning" concept. The new criteria also provided a better means of verification.

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The forecast district **DID NOT** have a "major" fire in 2004. A "major" fire is defined as 100 acres or an incident that requires a Type II management team. The closest fires were the Log Springs Fire (Warm Springs area), and the Bland Mountain #2 Fire (near Canyonville). A complex of small fires occurred in the Gifford Pinchot N.F., but these amounted to less than 100 acres. No Incident Meteorologists (IMETS) were dispatched to the Portland Fire Weather district. However, the Portland IMETS provided support on four incidents during 2004.

The 2004 season marked the first year that the Portland office did not have responsibility for zones 609, 610, and 611. These zones transitioned to the Pendleton office. Thus, spot forecast activity for the Portland office declined (see ***FORECAST SERVICES*** section, pages 33-38). The Portland office had its lowest spot forecast total since 1998.

Despite the lack of fire activity, and the shortened season, training and outreach remained a significant part of the fire weather program. The Portland office staff participated in many teaching activities. These classes started as early as January. There were teaching requests into June. The Portland office provided assistance to its former east-side users as well.

FAST FACTS: On August 6th, Rockhouse1 RAWS recorded a 10-minute sustained wind speed of 25 mph at 1600 PDT. Blue Ridge RAWS reported a 24 mph sustained wind at the same time.

The highest 24-hour rainfall (midnight to midnight) occurred August 2nd at Trout Lake (zone 660). A total of 3.82 inches fell that day. Hamilton RAWS (zone 660) measured 3.69 inches on August 25th. This was after 3.18 inches had fallen on the 24th.

On August 11th, Pebble RAWS (zone 608) hit 96 degrees, Boulder Creek RAWS (zone 608) also recorded 96, Rockhouse1 (zone 603) came it with 98, and Hamilton RAWS (zone 660) recorded 99 degrees. The highest temperature of the season was 105 degrees at Wilkinson RAWS (zone 603) on July 23rd. Village Creek (zone 603) hit 103 degrees on the same day.

There were 38 "large" fires in Region 6 during 2004. A total of 18 Type II Incident Management Teams (IMT's) were committed during the season, while only four Type I IMT's were assigned to fires in the Pacific Northwest. Estimated suppression costs for the 38 "large" fires were $78 million.